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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/782,448 | 02/13/2001 | Justin H. Benson | 230074-0235 | 9877 |

7590 08/12/2005
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EXAMINER

LEVI, DAMEON E

ART UNIT PAPER NUMBER

2841

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,448

Applicant(s)

BENSON ET AL.

Examiner

Dameon E. Levi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/06/2005 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1--17 is/are pending in the application.
- 4a) Of the above claim(s) 18-34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed. *KE*
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☒ Claim(s) 18-34(withdrawn) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleijne US Patent 4593384.

Regarding claim 1, Kleijne discloses an apparatus comprising:

a substrate (for example, see element P6, Figs 1-8) composed of a plurality of layers including a first layer, the first layer of the substrate for supporting circuit components to be protected (for example, see element 19, Figs 1-8),

a cover member composed of a plurality of layers (for example, see element P1-P5, Figs 1-8, see column 4, lines 13-23), the cover member having a surface for abutting the first layer of the substrate, the cover member defining an enclosure space for enclosing circuit components to be protected between the cover member and the substrate when the circuit components are supported on the substrate and the cover member is abutted to the substrate (for example, see column 2, lines 48-55)

and

a sensor (for example, see column 2, lines 55-65, see Figs 1-8) comprising at least one conduction path disposed in and integral to at least one of the layers below the first layer of the substrate and at least one conduction path disposed in and integral to at least one of the layers of the cover member.

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Regarding claim 2, Kleijne discloses further comprising an electronic circuit disposed on the substrate for detecting at least one of a short or a break in the conduction path disposed in the substrate or in the cover member(see Abstract).

Regarding claim 3, Kleijne discloses wherein the conduction path in the substrate and the cover member comprise at least one serpentine path(for example, see Figs 6A-7B).

Regarding claim 4, Kleijne discloses wherein the conduction path in the substrate and the cover member comprises a plurality of serpentine paths(for example, see Figs 6A-7B).

Regarding claim 5, Kleijne discloses wherein the substrate and the cover member comprise a plurality of layers, each layer having at least one conduction path(for example, see column 4, lines 13-23, see elements 21,23,24, Figs 3A – 3C2).

Regarding claim 6, Kleijne discloses wherein each layer of the substrate and the cover member comprises a plurality of serpentine paths(for example, see Figs 6A-7B).

Regarding claim 7, Kleijne et al discloses wherein the plurality of serpentine paths are disposed on the substrate and the cover member in a pseudo-random configuration(for example, see Figs 6A-7B).

Regarding claim 8, Kleijne discloses each conduction path comprising a thin-film conductor formed directly on the associated layer(for example, see elements 21,23,24, Figs 3A1, 3B2, 3C2).

Allowable Subject Matter

Claims 12-17 are allowable.

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The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 12-13, patentability exists, at least in part with the inclusion of a sensor comprising a plurality of vias in the side portions of the cover member, each via comprising an electrically conductive material defining a plurality of conduction paths extending transverse to the first and second surfaces, surrounding the enclosure space, when the second surface of the cover member is abutted to the first surface of the substrate.

Regarding claims 14-17, patentability exists, at least in part, with a sensor comprising a plurality of solder balls electrically connected to the second surface of the cover member, the plurality of solder balls electrically and mechanically connecting to the first surface of the substrate when the second surface of the cover member is abutted to the first surface of the substrate.

The prior art does not teach or suggest sensors comprising vias, or solder balls employed in the manner as taught by the Applicants.

In addition, claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 07/12/2005 have been fully considered but they are not persuasive. In response to Applicant's argument that the prior art of record does not disclose or suggest the claimed arrangement in which conduction paths are

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disposed in and integral to the layers of the substrate and the cover member, the Office directs the Applicant to column 2, lines 48-55, which states in part, "...each of said parts being comprised of a ceramic substrate and a plurality of ceramic layers disposed thereon" as well as, "...a tamper detection circuit including a first conduction path selectively provided through said plurality of ceramic layers of each of said plurality of individual parts". The Office see this teaching as still being within the scope of the claim since the conduction path is "selectively provided" through the plurality of layers.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E. Levi whose telephone number is (571) 272-2105. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00).


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dameon E Levi
Examiner
Art Unit 2841

DEL



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